

Virtual Beef Week 2020

Monday 6 July

Lessons from the Derrypatrick herd

Q&A



With **Aidan Murray**, beef specialist, Teagasc Animal & Grassland Research and Innovation Programme with input from Paul Crosson, Bernadette Earley and Orla Keane

How does the performance of the Derrypatrick herd compare with that of the average suckler producer?

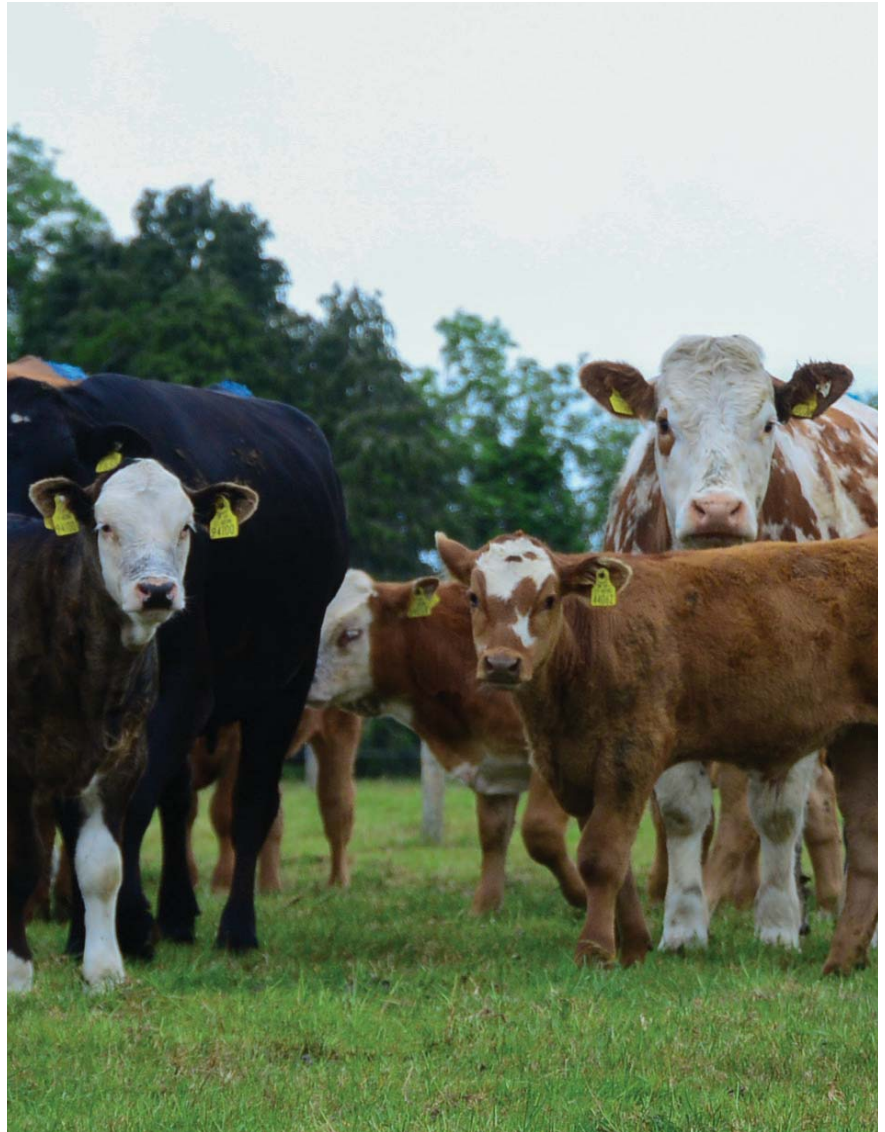
The Derrypatrick herd consists of 105 cows with a mix of breeds so it is considerably larger than the average suckler herd. When compared with the national average it is 35 days ahead in terms of calving interval. The percentage of heifers calving at 24 months is at 100% compared to 22% nationally. The six-week calving rate in Derrypatrick is 84% while the national average is 52%.

The herd uses 100% AI and selects proven sires based on the €uro-Star sub-index, giving access to top genetics for the herd, whether for terminal or replacement traits. At farm level, stock bulls form the basis for most of the progeny produced; only 16% of the suckler calf crop result from AI.

The Derrypatrick herd also has a very compact calving pattern of less than 12 weeks, which helps improve labour efficiency, animal health and marketing of stock. Animals have consistently demonstrated excellent weight-for-age from birth through to slaughter from what is a predominantly forage-based system.

Rank the key contributors to financial performance

The key factors driving performance on the Derrypatrick Herd are: excel-



lent grassland management, achieving reproductive performance targets and high liveweight gain per day of age. These factors are related to compact calving in the spring facilitating early turnout to pasture and long grazing seasons. This, in turn, supports high levels of liveweight performance from a predominantly grazed grass diet.

Spring-calving herds, in particular, must align calving with the onset of the grazing season. Compact calving with a median calving date close to the start of the grazing season is

essential. Median (when half of the cows have calved) and mean calving dates for the Derrypatrick Herd in 2020 were 3 March and 10 March.

This median calving date provides the best match between calving and turnout to pasture in spring at Teagasc Grange. The six- and nine-week calving rates were 84% and 95%. Average age of heifers at first calving in 2020 was 24.1 months of age. Including cows and heifers, the calving season was just over 11 weeks.

Grassland management revolves around a flexible rotational grazing system, with the objective of providing leafy swards of high digestibility. This entails grass budgeting with target farm covers and pre- and post-grazing herbage targets. A two-cut silage harvest system is operated with the aim to produce high nutritive value first-harvest grass silage for the progeny (>72% DMD) and moderate nutritive value silage for the cows (~66% DMD).

Describe the health strategy for the Derrypatrick herd

Derrypatrick has quite an intensive, proactive, health programme which is carefully planned in advance with the local vet. Bovine respiratory disease (BRD) is the leading cause of morbidity and mortality in calves and older animals. Research in Teagasc Grange into BRD has influenced some of the preventative strategies used in the herd. Vaccination is a key component of this strategy.

Veterinary advice should be sought for a suitable BRD vaccination programme and the widest protection will be achieved where the programme covers the three most common respiratory viruses – respiratory syncytial virus (RSV), parainfluenza-3 (PI-3) virus, bovine herpes virus type 1 (BoHV-1) virus (infectious bovine rhinotracheitis IBR) and the bacterial pathogen mannheimia (pasteurella) haemolytica.

Vaccinations help reduce the probability of disease but cannot be depended upon solely for prevention. The management system pre-weaning and post-weaning will assist the successful outcomes of a BRD vaccination programme. Efficacy of the vaccine is determined by many factors including the level of challenge presented to the animal, the proper functioning of the animal's immune system and the timing of vaccination relative to infection.

Calves in the Derrypatrick herd are vaccinated at two and six weeks old against BRD and they get a booster again pre-weaning in the autumn. Calves are also vaccinated against clostridial diseases in early summer. Male calves are castrated by the



Michael McManus, research technician on the Derrypatrick herd with bullocks from the herd.

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local vet in August, which is well in advance of weaning.

To minimise respiratory disease following weaning it is essential that stress is kept to a minimum. Castration should not be carried out for two or three weeks before, or four weeks after, weaning. Ideally, all calves should be provided with a concentrate creep prior to weaning.

Parasite control is a key component of the health strategy. Treatment of calves for gut worms is minimal. In most years only a single treatment, at housing, is given. For yearlings, treatment is on the basis of need as indicated by faecal egg count or failure to meet growth targets. We keep a close eye out for lungworm, with treatment based on clinical signs. Fluke is not a major challenge for Derrypatrick as the farm is relatively dry but we nonetheless examine the factory reports for any indication of fluke damage to livers.

Cows have a more broad spectrum vaccination programme to prevent IBR, Leptospirosis, BVD, salmonella and they are given a scour vaccine pre-calving.

What is the one key thing that every suckler farmer should take from the Derrypatrick research at Teagasc Grange?

The key message that suckler farmers need to take from Derrypatrick is that

for any suckler enterprise to be profitable, you need to have a planned system that is target-focused and forage-based. These targets extend across all the vital disciplines in terms of weight for age, turnout dates, stocking rate, breeding efficiency, health planning, silage quality.

What Derrypatrick clearly demonstrates is all aspects of the jigsaw need to be well done. Having an interest in breeding for example to produce top-quality weanlings may improve value per kilogram but if your grassland management is below par then this advantage may be eroded due to increased costs. Likewise, all your hard work could be undone if you fall short with your health programme.

What are the challenges in applying these lessons to a small herd?

The average herd size in Ireland is just 17-18 cows. Consequently many farmers are part-time and have to fit their farming around work commitments.

Derrypatrick is essentially in one block while many farms are fragmented which adds to the costs and impacts how they can optimise grassland management, their ability to use AI in their herd etc. Another significant challenge is that many commercial farms have low output and therefore low incomes with a very uneven cashflow. Their ability to invest and take up many of the technologies is therefore limited.

Finally, we are all unclear about what lies ahead with regard to CAP reform, COVID-19, Brexit and the environment. The key message is to address what you can control and virtually every farm has scope to improve its technical and financial performance by adopting at least some of the lessons from the Derrypatrick herd.